Step By Step to Seamless Textures for Rendering

Textures need to repeat themselves, like tiles, across the surfaces of rendered models. If the texture is not edited to repeat seamlessly, there will be obvious and unsightly lines where the texture repeats and your rendered surface will look like a checkerboard.

- 1. Open your image in Photoshop and crop it to the desirable size. Double-click on the Crop Tool, choose "Fixed Target Size;" settings of 256 x 256 pixels at 72 ppi will usually work well.
- 2. From the "Filter" menu, choose "Other" and "Offset."
- 3. In the Offset dialog box, choose first the number of pixels you wish to offset in the "Horizontal" field. This number should be 1/2 the number of pixels across. For a 256 ppi image, choose 128 ppi. Do not offset the image vertically yet, just type a zero in the "vertical" field. Make sure the "Wrap Around" radio button is chosen. Press "OK."

Offset	
Herizontal: 128 pixels right Vertical: 0 pixels down	OK Cancel
Undefined Areas	Preview
O Set to Background	
Bepeat Edge Pixels	
Wrap Around	

- 4. You will now notice an obvious line running down the center of the image. With the "Clone" tool, clone this line out of the image using a soft edge brush. Depending on your pattern, you will need to experiment a bit to make this line "disappear."
- 5. Choose the Offset filter again and repeat steps three and four, typing in the same number of pixels above using the "Vertical" field instead of the "Horizontal" field (128 pixels using our example). After you press "OK", there will be a line running straight across the image. Clone this line out as using the same techniques as above.

To Check Your Results

- 1. Short of applying your texture to a surface in your rendering program and visualizing the results, the immediate way to check your success is to choose "Select All" from the "Select" menu and then choose "Define Pattern" from the "Edit" menu.
- 2. Create a new document at least twice as large as the original pattern (in our example 512 x 512 pixels), and choose "Fill" from the Edit menu.
- 3. In the "Fill" dialog box, choose "Pattern" from the popup "Contents" menu and press "OK." The offensive seams should not be noticeable.

Tips for Acquiring Images

- 1. Flat samples can be placed directly on the bed of the scanner like carpet, tile, wallpaper, or fabric. When placing thicker items on the scanner like tile or carpet, place a black cloth over the scanner to prevent light from leaking in on the sides.
- 2. Certain materials like brick or shingles, are best photographed followed by a scan of the photo. Watch out when scanning materials from printed images, however—you might have to deal with moire patterns. Digital cameras come in handy, also, for these kinds of photos, eliminating the need for scanning.

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